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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/730,346

12/08/2003

Edward Russell Cox

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THE PROCTER & GAMBLE COMPANY
Global Legal Department - IP
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EXAMINER

MATTISON, LORI K

ART UNIT

PAPER NUMBER

1619

MAIL DATE

DELIVERY MODE

10/13/2010

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/730,346	Applicant(s) COX ET AL.	
	Examiner LORI MATTISON	Art Unit 1619	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07/16/2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,4-7,9-11 and 55-59 is/are pending in the application.
- 4a) Of the above claim(s) 55-59 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,4-7, and 9-11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>07/16/2010</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 1, 2, 4-7, 9-11 and 55-59 remain pending. Claims 3, 8, and 12-54 are cancelled. Claims 55-59 remain withdrawn.

2. Applicant's arguments and amendments to claim 1, filed 7/16/2010, are acknowledged and have been fully considered. Any rejection and/or objection not specifically addressed below in original or modified form is herein withdrawn.

Claims 1, 2, 4-7 and 9-11 are pending and examined on the merits.

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 07/16/2010 has been entered.

Response to Arguments

In the traverse of the rejection of claims 1, 2, 4-7, and 9-11 under 35 USC 103(a) over BERNOTAVICZ, YOUNG, LANCOMBE, Applicant alleges that the recited references do not teach the recited composition because the recited composition is now drawn to a dry composition (Reply, page 5, paragraphs 6 and 7).

Applicant's traverse is moot in light of the new grounds of rejection below.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35

U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1, 2, 4-7, and 9-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over NATURAL BALANCE in view of HALE as published in the *Journal of Veterinary Dentistry* in 1998, US Patent No. 5,094,870 (SCAGLIONE, 1992), DOGS HEALTH as archived on 9/20/2002, ROYAL CANIN DRY DOG FOOD archived on 8/15/2003, DRY DOG FOOD as archived on 7/12/2002, and Merck Veterinary Manual 8th Edition (See PTO-892 mailed on 9/04/2008)

Claim Summary: The claims are generally to a composition which comprises a soluble mineral component which comprises two or more minerals, a source of protein and a phosphate component. The soluble mineral and the phosphate components are present in an amount effective for use as an oral medicament. The soluble mineral and phosphate components coat the surface of the edible composition also comprises a nutritionally balanced dog food or cat food. The claims further define the amount and type soluble mineral component.

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NATURAL BALANCE teaches a dry dog food (page 1 of 2, paragraph 1; instant claim 1). The dog food comprises a protein source from lamb meal (page 1 of 2, paragraph 2; instant claim 1) and a soluble mineral component which comprises manganese sulfate (instant claim 6), zinc sulfate (instant claim 6), and copper sulfate (instant claims 6 and 11; page 1 of 2, last paragraph). NATURAL BALANCE teaches that food is complete and balanced nutrition for all life stages ("General", page 2 of 2, last paragraph). Thus, one of ordinary skill in the art would recognize that the soluble mineral component is present in an amount effective for use as an oral medicament against malnutrition.

NATURAL BALANCE does not teach a phosphate component, which is a pyrophosphate as set forth by instant claims 1, 9, and 10.

NATURAL BALANCE does not teach that the soluble mineral and the phosphate components are coated on the surface of the composition as set forth by instant claims 1 and 4.

NATURAL BALANCE does not teach the percentages of manganese, zinc, or copper and the percentages of these mineral components by weight of the composition as recited by claims 2, 5, and 7.

HALE teaches that the incidence of dental caries in dogs is approximately 5.3% (abstract).

SCAGLIONE teaches a dog biscuit that comprises an inorganic pyrophosphate. SCAGLIONE teaches that inorganic pyrophosphate component of the biscuit reduces the accumulation of tartar on the teeth of dogs (column 7, lines 25-40). SCAGLIONE goes on to teach that through the prevention of formation of tartar, the dog biscuit has an anti-cariogenic agent effect because the microorganisms which are present in the organic portion of tartar are no

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longer present to produce acids to eat away at the enamel (column 1, lines 30-35; column 7, lines 25-50). SCAGLIONE teaches that this anti-tartar and anti-cariogenic effect is achieved through the process of eating and chewing dog biscuits (i.e. dog food) which contain pyrophosphates by the dogs (column 4, lines 10-30). SCAGLIONE further teaches a process for preparing dog biscuit dough which comprises admixing an inorganic pyrophosphate and the other ingredients of the dog biscuit (column 4, lines 30-35; Table 1, Example 2-column 14)

SCAGLIONE teaches that pyrophosphate (i.e. polyphosphate) is a soluble phosphate (column 3, lines 5-10).

DOGS HEALTH teaches that sodium tripolyphosphate removes tartar buildup from the teeth of dogs when used in a dog treat (page 1 of 4, column 2, paragraph 2).

ROYAL CANIN DRY DOG FOOD demonstrates that the anti-tartar agents, in particular sodium tripolyphosphate, have been included in dry dog food since at least 2003 (page 2 of 5, column 1, paragraph 1).

DRY DOG FOOD teaches Nature's Variety Prairie dry dog food (page 4 of 6, box 2). This dry dog food is "bio-coated" to increase enzymes, unaltered bio-available amino acids, essential fatty acids, vitamins, and minerals that would otherwise be degraded during processing (page 4 of 6, box 2).

The MERCK VETERINARY MANUAL 8TH EDITION teaches that the minimum nutrient requirement for dogs for zinc, manganese, and copper is 0.012% (instant claims 2 and 7), 0.0005% (i.e. "about 0.001% by weight"; instant claims 2 and 7), and 0.00073% (instant claims 2 and 5) respectively by weight (page 1626). The sum of these percentages is 0.013% (page 1626). MERCK teaches that the AAFCO guidelines for the amount of zinc present in the

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composition is optimizable with the amount of zinc required ranging from is 0.012% - 0.1 % by weight (page 1626). MERCK also teaches that the AAFCO guidelines for the amount of copper present in the composition is optimizable with the amount of copper required ranging from 0.00073% -0.025% by weight of the composition (page 1626). Therefore the amount of the recited minerals can range from 0.01323-0.1255% (page 1626; i.e. at least about 0.02% of mineral component; instant claim 5).

With regard to instant claims 1, 9, and 10, it would have been *prima facie* obvious to a person of ordinary skill in the art at the time the invention was made to have modified the dog food composition taught by NATURAL BALANCE by adding pyrophosphate to the composition. The skilled artisan would have been motivated to do so in order to prevent cavities in the teeth of dogs by removing the tartar in which cavity causing microorganisms reside as taught by the combined teachings of HALE and SCAGLIONE. The skilled artisan would have had a reasonable expectation of success in doing so because pyrophosphate is functionally equivalent to sodium tripolyphosphate which is also utilized in dog biscuits/treats and dry dog food as taught by the combined teachings of DOGS HEALTH and ROYAL CANIN DRY DOG FOOD. The artisan of ordinary skill would have had further expectation of success because it was previously known to add pyrophosphate to the ingredients of a dog biscuit in order to provide an anti-tartar and an anti-cariogenic effect which occurs through the mechanical action of chewing and eating the dog biscuit by the dog as taught by SCAGLIONE. With regard to the effective amount of pyrophosphate to add, the adjustment of particular conventional working conditions (e.g. determining result effective amount of pyrophosphate taught by SCAGLIONE) is deemed merely a matter of judicious selection and routine optimization which is well within

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the purview of the ordinary artisan with said artisan recognizing inclusion of pyrophosphate as an anti-tartar and anti-cavity agent as taught by SCAGLIONE.

With regard to instant claims 1 and 4, it would have been *prima facie* obvious to a person of ordinary skill in the art at the time the invention was made to have modified the structure of the dry dog food composition taught by the combined teachings of NATURAL BALANCE, HALE, SCAGLIONE, DOGS HEALTH and ROYAL CANIN DRY DOG FOOD by placing the all (i.e. at least 50 % of the mineral component) of the manganese sulfate, zinc sulfate, copper sulfate, and pyrophosphate supplements of the composition in a bio-coating around the dry kibble as taught by DRY DOG FOOD. The skilled artisan would have been motivated to do so in order to prevent the degradation of minerals which would occur during processing as taught by DRY DOG FOOD. The skilled artisan would have had a reasonable expectation of success in doing so because DRY DOG FOOD teaches a commercially available dry dog food in which the vitamin and mineral components are bio-coated onto the dog food. Thus, it is within the skill and resources of an ordinary artisan to provide a dry dog food in which the dry food has been coated with vitamins and minerals.

With regard to instant claims 2, 5, and 7, the adjustment of particular conventional working conditions (e.g. determining result effective amounts of the manganese, copper, and zinc taught by the combined references of NATURAL BALANCE and MERCK to yield a composition comprising 0.02 wt. % soluble mineral component) is deemed merely a matter of judicious selection and routine optimization which is well within the purview of the ordinary artisan with said artisan recognizing that dogs have nutritional requirements to achieve optimal

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health which involve inclusion of zinc, copper, and manganese ions in their diet in the range of percentages taught by MERCK.

A reference is good not only for what it teaches by direct anticipation but also for what one of ordinary skill in the art might reasonably infer from the teachings. (*In re Opprecht* 12 USPQ 2d 1235, 1236 (Fed Cir. 1989); *In re Bode* 193 USPQ 12 (CCPA) 1976). In light of the foregoing discussion, the Examiner concludes that the subject matter defined by the instant claims would have been obvious within the meaning of 35 USC 103(a). From the teachings of the references, it is apparent that one of ordinary skill in the art would have had a reasonable expectation of success in producing the claimed invention. Therefore, the invention as a whole was *prima facie* obvious to one of ordinary skill in the art at the time the invention was made, as evidenced by the references, especially in the absence of evidence to the contrary.

Conclusion

No claims are allowed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to LORI MATTISON whose telephone number is (571)270-5866. The examiner can normally be reached on 8am-6pm (Monday-Thursday).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Yvonne (Bonnie) Eyler can be reached on (571)272-0871. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/LORI MATTISON/

Examiner, Art Unit 1619

/Andrew D Kosar/

Primary Examiner, Art Unit 1654